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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,613	12/21/2001	Grzegorz Stachowiak	3691-357	3865
23117	7590	03/01/2004	EXAMINER	
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			PIZIALI, ANDREW T	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/024,613	STACHOWIAK, GRZEGORZ	
	<b>Examiner</b>	<b>Art Unit</b>	
	Andrew T Piziali	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Species 1 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Response to Amendment***

2. The amendment filed on 1/14/04 has been entered. The examiner has withdrawn the 35 USC 112 rejections of claims 6 and 18 based on the amendments to claims 6 and 18. The examiner has withdrawn the rejections of claims 52-55, 59 and 60, based on the cancellation of these claims.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7-13, 15-17 and 19-24 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,045,896 to Boire et al. (hereinafter referred to as Boire).

Regarding claims 1-5, 7-13, 15-17 and 19-24, Boire discloses a coated article (see entire document including Figure 1) including a coating supported by a glass substrate (1), the coating comprising first and second infrared reflecting layers comprising silver (3,6), a first dielectric (barrier) layer (2a), a second dielectric (barrier) layer (5a), an absorbent layer (8a), and a third

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dielectric (barrier) layer (8b). Boire discloses that the coated article has a visible light transmission of from 50 to 85% (column 9, lines 15-23).

Boire discloses that each dielectric (barrier) layer may be based on a silicon compound such as silicon oxide, silicon nitride, or silicon oxynitride (column 5, lines 27-31). Boire also discloses that each dielectric (barrier) layer may also be a combination of layers of dielectric material including additional materials such as titanium oxide and/or tin oxide (column 7, lines 19-52). Therefore, Boire discloses the use of multi-layer dielectric (barrier) layers such as  $\text{TiO}_2/\text{Si}_3\text{N}_4$ ,  $\text{TiO}_2/\text{SnO}_2$ , and/or  $\text{TiO}_2/\text{SnO}_2/\text{SiO}_2$ , and Boire teaches an embodiment wherein the average indices of refraction of the top ( $n_T$ ), middle ( $n_M$ ) and bottom ( $n_B$ ) dielectric coating portions have values so that  $n_T < n_M < n_B$ .

Regarding claims 9 and 20, considering the substantially identical coated article disclosed by Boire, compared to the currently claimed art, it appears that the coated article possesses the currently claimed properties.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

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Regarding claim 11, Boire discloses that the coated article may be an IG window unit (column 9, lines 6-14).

Regarding claim 22, Boire discloses that the coated article may be a window (column 1, lines 8-21).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boire as applied to claims 1-5, 7-13, 15-17 and 19-24 above, and further in view of USPN 6,340,529 to Ebisawa.

Boire discloses that each silver layer may be sandwiched between thin sacrificial layers (column 1, lines 29-35, and column 5, lines 42-58). Boire does not specifically mention sacrificial layers comprising NiCr, but Ebisawa discloses that it is known in the art to use sacrificial layers comprising NiCr, NiCrO<sub>x</sub>, or NiCrN<sub>x</sub> (see entire document including column 4, lines 9-35). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the sacrificial layers of Boire from any suitable material, such as NiCr, NiCrO<sub>x</sub>, or NiCrN<sub>x</sub>, as disclosed by Ebisawa, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.

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7. Claims 14 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boire as applied to claims 1-5, 7-13, 15-17 and 19-24 above, and further in view of USPN 6,495,251 to Arbab et al. (hereinafter referred to as Arbab)

Boire does not specifically mention using a graded silicon oxynitride outer dielectric (barrier) layer, but Arbab discloses that it is known in the art to use a graded silicon oxynitride dielectric (barrier) layer as an outer dielectric (barrier) layer of a coated article to provide protection against mechanical and chemical attack (see entire document including column 4, lines 3-64, column 5, lines 13-27, and column 6, lines 38 through column 7, line 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the outer dielectric (barrier) layer of Boire from any suitable dielectric material, such as a graded silicon oxynitride layer, as disclosed by Arbab, because a graded silicon oxynitride layer would provide protection against mechanical and chemical attack and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.

#### *Response to Arguments*

8. Applicant's arguments filed 1/14/04 have been fully considered but they are not persuasive.

The applicant asserts that the 35 USC 102(b) rejection is traversed because there is nothing in Boire that would have led one of ordinary skill in the art to have chosen materials capable of satisfying the relationship called for in claim 1 wherein the average indices of refraction of the top ( $n_T$ ), middle ( $n_M$ ) and bottom ( $n_B$ ) dielectric coating portions have values so that  $n_T < n_M < n_B$ . The applicant also asserts that even if motivation existed that would have led

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one of ordinary skill in the art to have chosen materials capable of satisfying the relationship called for in claim 1, Boire does not recognize the unexpected results of increased visible transmission and/or reduced visible reflection, and fairly neutral coloration.

The applicant appears to be asserting that the rejection requires a motivational statement, but the examiner contends that the rejection is a 35 USC 102(b) anticipation rejection, not a 35 USC 103(a) obviousness rejection, and therefore a motivational statement would not be appropriate.

Regarding applicant's claim of unexpected results, the examiner is only required to consider comparative data in the specification which is intended to illustrate the claimed invention in reaching a conclusion with regard to the obviousness of the claims (see MPEP 716.01(a)). Considering that the examiner is not reaching a conclusion with regard to the obviousness of the claims, because the rejection is a 102 anticipation rejection, the unexpected results claimed by the applicant are moot.

Boire discloses that each dielectric (barrier) layer may be based on a silicon compound such as silicon oxide, silicon nitride, or silicon oxynitride (column 5, lines 27-31). Boire also discloses that each dielectric (barrier) layer may also be a combination of layers of dielectric material including additional materials such as titanium oxide and/or tin oxide (column 7, lines 19-52). Therefore, Boire discloses the use of multi-layer dielectric (barrier) layers such as  $\text{TiO}_2/\text{Si}_3\text{N}_4$ ,  $\text{TiO}_2/\text{SnO}_2$ , and/or  $\text{TiO}_2/\text{SnO}_2/\text{SiO}_2$ , and Boire teaches an embodiment wherein the average indices of refraction of the top ( $n_T$ ), middle ( $n_M$ ) and bottom ( $n_B$ ) dielectric coating portions have values so that  $n_T < n_M < n_B$ .

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*Conclusion*

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

*gtp 2/20/04*

**ANDREW T. PIZALI**  
**PATENT EXAMINER**

*Terrel Morris*

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